

IN THE CLAIMS:

Claims 1-8, 19, and 24-41 were previously cancelled. Claims 9, 44 and 48 have been amended herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1.-8. (Cancelled)

9. (Currently amended) A device for establishing electrical contact with a lead element extending from an IC device, comprising:  
a one-piece substrate bounded by a first surface and an opposing, second surface and having at least one conductive trace, wherein the first surface is configured for mounting a plurality of IC packages thereto;  
a spring contact including a generally uncoiled serpentine base portion and a contact portion longitudinally adjacent thereto, the contact portion comprising a resiliently compressible coil spring comprising a plurality of coils configured to bias against and electrically contact a lead element of an IC package of the plurality of IC packages, and the generally uncoiled serpentine base portion extending generally longitudinally away from the contact portion and transversely to the coils of the coil spring; and  
an aperture including a seat portion providing an opening onto the first surface of the one-piece substrate and a retaining portion having a substantially uniform diameter and a first end connected to an opposing end of the seat portion and a second end extending at least partially into the one-piece substrate, wherein ~~the~~ an area of the retaining portion having the substantially uniform diameter ~~of the retaining portion~~ is smaller than ~~the~~ an area of the opening of the seat portion at the first surface of the one-piece substrate, the seat portion of the aperture sized and configured to at least partially contain the contact

portion of the spring contact and longitudinally support the coils of the coil spring during compression thereof, and the retaining portion of the aperture configured to receive and electrically connect the generally uncoiled serpentine base portion of the spring contact to the at least one conductive trace.

10. (Previously presented) The device of claim 9, wherein the second end of the retaining portion does not extend entirely through the one-piece substrate to the opposing, second surface.

11. (Previously presented) The device of claim 9, further comprising a layer of conductive material disposed on at least a portion of an interior wall of the aperture, the layer of conductive material electrically connecting the generally uncoiled serpentine base portion of the spring contact to the at least one conductive trace.

12. (Previously presented) The device of claim 11, wherein the at least one conductive trace is formed on the first surface of the one-piece substrate.

13. (Previously presented) The device of claim 11, wherein the at least one conductive trace is formed on an intermediate plane within the one-piece substrate.

14. (Previously presented) The device of claim 11, wherein the retaining portion of the aperture extends through the one-piece substrate and opens onto the opposing, second surface of the one-piece substrate and the at least one conductive trace is formed on the opposing, second surface of the one-piece substrate.

15. (Previously presented) The device of claim 9, further comprising a volume of conductive filler material disposed in and filling at least a portion of a longitudinal extent of the aperture within which the generally uncoiled serpentine base portion extends and electrically contacting the generally uncoiled serpentine base portion of the spring contact.

16. (Previously presented) The device of claim 15, wherein the conductive filler material is electrically connected to the at least one conductive trace of the one-piece substrate.

17. (Previously presented) The device of claim 16, wherein the at least one conductive trace is formed on an intermediate plane within the one-piece substrate.

18. (Previously presented) The device of claim 16, wherein the retaining portion of the aperture extends through the one-piece substrate and opens onto the opposing, second surface of the one-piece substrate and the at least one conductive trace is formed on the opposing, second surface of the one-piece substrate.

19. (Cancelled)

20. (Previously presented) The device of claim 9, wherein the second end of the retaining portion opens onto the opposing, second surface of the one-piece substrate.

21. (Previously presented) The device of claim 9, wherein the seat portion comprises a generally hemispherical recess formed in the first surface of the one-piece substrate, a generally conical recess formed in the first surface of the one-piece substrate, or a generally cylindrical recess formed in the first surface of the one-piece substrate.

22. (Previously presented) The device of claim 9, wherein the seat portion is further configured to at least partially align the lead element of the IC package of the plurality of IC packages relative to the spring contact.

23. (Previously presented) The device of claim 9, wherein the contact portion of the spring contact comprises a resiliently compressible coil spring having at least two spring coils wherein each of the at least two spring coils is configured to bias against and electrically contact the lead element of the IC package of the plurality of IC packages.

24.-41. (Cancelled)

42. (Previously presented) The device of claim 9, wherein the resiliently compressible coil spring of the contact portion further comprises at least one point for penetrating an outer surface of the lead element of the IC package of the plurality of IC packages.

43. (Previously presented) The device of claim 9, wherein the resiliently compressible coil spring of the contact portion further comprises a contact element selected from the group consisting of a sharp edge formed by a cross-section of the resiliently compressible coil spring, a blade extending longitudinally along a surface of the resiliently compressible coil spring, a blade extending circumferentially around a surface of the resiliently compressible coil spring or a barb protruding from a surface of the resiliently compressible coil spring.

44. (Currently amended) The device of claim 9, further comprising a clamping element configured to secure the IC package of the plurality of IC packages to the first ~~substantially planar~~ surface of the ~~substantially planar~~ one-piece substrate.

45. (Previously presented) The device of claim 44, wherein the clamping element comprises a stab-in-place clip.

46. (Previously presented) The device of claim 9, wherein the contact portion of the spring contact exhibits at least one of a substantially cylindrical shape, a conical shape, and a hemispherical shape.

47. (Previously presented) The device of claim 9, wherein the contact portion of the spring contact includes an apex positioned for contacting the lead element of the IC package of the plurality of IC packages.

48. (Currently amended) The device of claim 9, wherein the generally uncoiled serpentine base portion of the spring contact is sized to extend, at most, partially into the retaining portion of the aperture.

49. (Previously presented) The device of claim 15, wherein another longitudinal extent of the aperture is free from the conductive filler material.

50. (Previously presented) The device of claim 23, wherein a diameter of the aperture exceeds, along the longitudinal extent thereof, a diameter of a material forming the spring contact.